YOKOGAWA

TB100

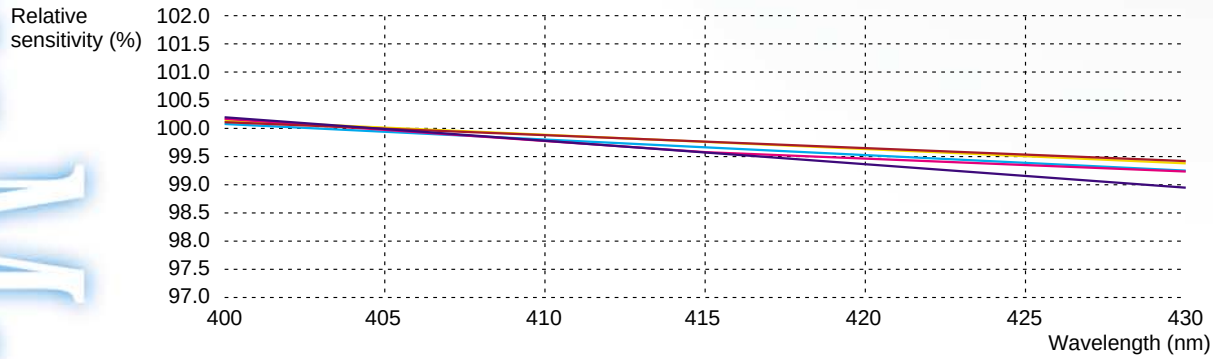
Blue Laser Optical Power Meter

The Blue Laser Optical Power Meter is the perfect instrument for measuring the power of 400 nm waveband blue-violet laser. The sensitivity of characteristics around 400 nm is flat, so an exact wavelength setting is not required. Palm-sized and lightweight (450 g), the TB100 takes up little place and is easy to carry. Choose an AC adaptor or dry cell battery for the power supply.

Features

- Flat sensitivity characteristics at the 400 nm wavelength.
- High power measurement (100 mW)
- Large photoreceptor (Φ18 mm)
- The influence of multiplex reflection is eased by the sensor's low-reflection surface.

Wavelength Sensitivity Characteristic of the TB100



Includes measured data from five TB100s

Specifications

•Power Meter Unit (TB100)

Display of Measurement Values	7 segments, 4 digits
Unit Display	Absolute value: dBm, mW,µW, nW, Relative value: dB
Calibration Factor	Compensation of the sensor wavelength sensitivity (in 1 nm step)
Switching of Range	Automatic or fixed (up/down)
Measurement Mode	Switching of CW light and chop light (270 Hz/ 1 kHz/ 2 kHz)
Measurement Interval	Approximately 330 ms
Averaging	Moving average method (10/50/100). Switching between on and off is available.
Display Resolution	Switching between 0.1 and 0.01 is available.
Relative value measurement	Relative measurement against the reference measurements Relative measurement based on displayed measurements.
Back Light	Back light goes on as long as the back light key is depressed. It remains turned on approximately 5 seconds after the key has been released.
Auto Power Off	Power is automatically turned off 3 or 10 minutes after the last key operation.
Battery Check	Display of ' low battery '
Buzzer Function	Activated upon input of a level larger than the set level (variable).
Resume Function	Reproduces conditions being set at the time when power has been turned off.
Back-up Function	Set conditions are backed up during battery replacement. (for 8 hours)
Analog Out	0 to approx. +1.5 V (at automatically range switching)
Power Supply	4 dry cell batteries; AC adapter (100 to 240 VAC, 48 to 63 Hz)
Environmental Conditions	Operating temperature: 0 to +50°C, Preservation temperature: -25 to +70°C, Humidity: 85% or less
Weight	Approximately 450 g
Dimensions	Approx. 205(H) × 88(W) × 43(D) mm .
Standard Accessories	DC pack, 4 dry cell batteries pack, AC adapter, adapter for Analog OUT, Power cord, User's Manual

•MODEL

Name	Model	Suffix Codes	Description
TB100 Blue Laser Optical Power Meter	327001		100 VAC to 240 VAC
		-D	UL,CSA standard
		-F	VDE standard
		-G	AS standard
		-Q	BS standard
Blue Laser Optical Sensor	327010		400 nm to 850 nm, Max. 100 mW
		/CA	Calibration Certificate
RS-232 UNIT	327020		for TB100
Carrying case	327080		Soft case for TB100

Note: The calibration certificate (/CA) for the 327010 Blue Laser Optical Sensor is optional, and needs to be ordered together with the sensor. The calibration certificate can not be ordered separately.

•Power Sensor Unit

Range of Wavelength	400 to 850 nm (Note 1)
Reference Wavelength	405 nm
Light Sensitive Element	Si Ø 18 mm
Application	Space light
Power Range (CW Light)	32 nW to 100 mW (-45 dBm to +20 dBm)
Noise Level (CW Light)	100 nW
Accuracy at a Standard Conditions	±4% (1 mW) (Note 2) ±3% : When calibrating the 327001 main unit & 327010 sensor unit together
Measurement Accuracy	±5% (1 mW) (Note 3)

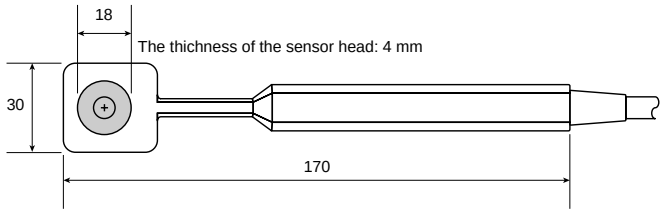
Note 1: Wavelength setting range for sensor sensitivity correction.
Note 2: For Ta=23°C ±3°C , CW light, and reference wavelength.
Note 3: For Ta=23°C ±5°C , CW light, and 400 to 420 nm.

•RS-232 Unit

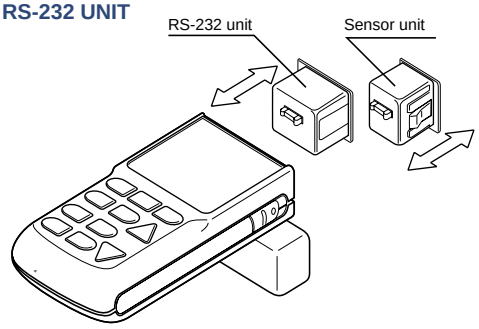
Communication Method	RS - 232C
Data Length	8 bit
Parity	None
Stop Bit	2 bit
Bitrate	2400 bps
Transmit and Receive	Only transmission
	It is impossible to remote control the request to send various setup information and data.
Communication Connector	D-SUB 9 pin (male)

•Dimensions of the Power Sensor

unit: mm



•Sensor and RS-232 UNIT



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